### DA15-0769 TML

4-11-2015

Date:



OWNER DETAILS

Signature:

### Application for Development Approval

Name: BORAL REJOURCES (WA) LTD				
ABN (if applicable): 57 008 686 904	12/1			
Address: LEVEL 1 63-69 ABEANETHY	ROAD			
BELMONT WA	Postcode:			
Phone: 9333 3624 Fax:				
Mobile: Email:	y. control @boral. Com. au			
Contact person for correspondence:  ANTIFOLY WATS	2			
Signature: AMACI	Date: 4-11-2015			
Signature:	Date:			
APPLICANT DETAILS				
Name: BORAL RUSOURUS (WA) LTD				
Address: LEVEL 1, 63.69 ABERNETIS BELMONT ALA	14 ROAD			
BESLMONT ALA	Postcode: 6104			
Phone: 9333 3624 Fax:				
Mobile: Email:	watson@boral.com.au			
Contact person for correspondence:  ANTHONY ALAM				
The information and plans provided with this application local government for public viewing in connection with t	may be made available by the			
Yes ☑ No □				

PROPERTY DETAILS						
Lot No:	House/ Street No: 33 Location No		Location No:			
Diagram or <del>Plan</del> No:	Certificate of Title Vol No	eate of Title Vol No: 1830 Folio: 850				
Title encumbrances (e.g. eas	ements, restrictive covenan	ts):				
Street name: KINC	STREET	Subu	rb: {	3 AY SWATTER		
Nearest street intersection:	RAYMOND AUGHE			, ,		
PROPOSED DEVELOPMEN	T		Life of			
Nature of development:	· ·		_/	/		
THE INSTALLATION OF A SECONDARY			₩ Works			
BATCH PLANT GO SUP OPERATIONS ON SIT				Use		
01 BIDE110-07 0/0 31	1 & ·			Works and use		
Is an exemption from develop	ment claimed for part of the	•		Yes		
development?			ر ا ای	No		
If yes, is the exemption for:						
				Vorks		
· ·				Jse		
Description of proposed works and/or land use: INSTALLATION OF MOBILETRANS- PORTABLE BATCH PLANT, CEMENT SILO AND AUXICIARY WEIGHT						
HOPPER AND CONVEYOR.						
Description of exemption clair	ned (if relevant):					
\$ 54545.45						
Nature of any existing building	gs and/or land use: ՄԸԱՀԵՐ	ONAL	Cost	NCLBTE BATCHING PANK		
Approximate door of the prope	aced development.	0 0	00	(inc RST		
Estimate time of completion: 4 WEEKS FROM COMMENCEMENT						
OFFICE USE ONLY						
Acceptance Officer initials: Date Received:						
Local government reference N	lo:					



### Boral Resources (WA) Bayswater Concrete Batch Plant

## Bayswater Concrete Batch Plant Plant Upgrade

**Supporting Documentation** 

Boral Resources (WA)

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Figure 1: Site Location

Figure 2: Site Layout

### **Appendices**

Appendix A - Plant Specifications

Appendix B – Traffic Movements

### 1 INTRODUCTION

### 1.1 Background

Boral Resources (WA) Ltd operates a concrete batch plant at 21 King Street, Bayswater. Concrete batching operations commenced at this site more than 30 years ago. The plant currently operates under a Development Approval issued by the City of Bayswater.

The plant also operates under Department of Environment Regulation Registration No. 00185 (issued October 1996), and in accordance with the *Environmental Protection* (Concrete Batching and Cement Product Manufacturing) Regulations 1998.

Boral Resources is proposing to upgrade and install a secondary batch plant to support the current plant and enhance production efficiency. It is intended that the secondary plant be dedicated for the production of decorative concrete mixes, eg. exposed aggregate products.

With current markets shifting toward decorative concrete products the over-all production capacity of the site is not anticipated to increase significantly.

### 1.2 Proponent Details

Name:

Boral Resources (WA) Ltd

ABN:

57 008 686 904 Anthony Watson

Contact:

Planning & Development Manager - WA

**Boral Property Group** 

63-69 Abernethy Road BELMONT WA 6104

(08) 9333 3624 0401 893 357

anthony.watson@boral.com.au

### 1.3 Environmental Performance

Boral's Environmental Policy affirms our commitment to complying with environmental legislation, regulations, standards and codes of practice relevant to the particular business as the absolute minimum requirement in each of the communities in which we operate.

The Bayswater Batch Plant has historically demonstrated a high level of environmental performance. Environmental audits and assessments are completed by Boral on a regular basis to monitor performance and compliance against legislative requirements. Opportunities for improvement are identified and actioned where possible.

All potential dust sources onsite are effectively managed in accordance with the *Environmental Protection (Concrete Batching and Cement Product Manufacturing)* Regulations 1998. It is not usual practice to conduct environmental dust monitoring and therefore no past monitoring has been undertaken nor proposed for the future.

### 1.4 Premises Details

Site Name:

Boral Concrete - Bayswater

33 King Street, Bayswater

Location:

### 2 DESCRIPTION OF PROPOSAL

### 2.1 Site Location

The location of the existing Bayswater batch plant premises as shown in Figure 1.

### 2.2 Plant Specifications

It is proposed that a secondary portable batch facility be added to the current production plant. The additional plant will consist of:

- Portable batch plant
- Mobile cement silo
- Auxiliary weigh hopper and conveyor

This plant will have a production capacity of up to 80 tonnes of concrete per hour.

Detailed plant specifications as provided by the manufacturer are provided in Appendix A.

### 2.3 Site Layout

The additional plant will be positioned to complement the current layout and activities onsite. The site is adequately sized to accommodate the new plant without any existing plant or infrastructure being dismantled or moved. Figure 2 provides a site plan showing existing plant and facilities and proposed location of the new plant.

By locating the mobile facility adjacent to the aggregate bins that store decorative stone, the potential for emissions (noise and dust) is greatly reduced, as opposed to the situation of transporting the decorative stone to the fixed plant for processing.

### 2.4 Construction

The plant components will be transported to site on semi-trailers. Minimal site works and ground works will be required. As shown in Figure 2, open ground currently exists within the premises for the plant to be located. The assembly of the plant will not require any significant earthworks or other construction works. Assembly to operational standard can normally be completed within approximately four weeks.

### 2.5 Operation

The plant is controlled by a dedicated Batch Operator from the batch cabin/office.

The process of the portable batch plant is as follows:

- 1. Aggregates are loaded from existing ground bins into the auxiliary weigh hopper according to product specification.
- 2. The aggregates are then transferred via conveyor to the portable batch plant.
- 3. Cement is transferred from the mobile silo to the mobile batch plant via an enclosed auger.
- 4. The batch plant combines raw materials to required mix specifications and delivers them to the agitator truck in the load out bay.
- 5. Final product mixing and water addition at existing slump stand area.

This secondary plant will operate to complement current production on site. The plant will be dedicated to the production of decorative concrete mixes.

The over-all production rate of the site will not increase significantly. It should be noted that there is excess capacity in the current infrastructure and a great deal of the additional production would be able to be undertaken by the current plant should Boral wish to pursue this option. However, for the sake of efficiency and management of the site, the installation of the mobile facility is the most prudent option.

Existing infrastructure on site has been assessed and will have adequate capacity to be utilised in conjunction with the secondary plant, including:

- Ground bins
- Slump stand
- Washout pits
- Water/waste recycling process
- Truck wash bay

There will be no alterations or additions to the activity types currently approved on site and therefore no change to the nature or type of emissions.

The secondary plant will be installed to in compliance with the *Environmental Protection* (Concrete Batching and Cement Product Manufacturing) Regulations 1998 and all potential fugitive and point source emission sources will be managed in accordance with these regulations.

The current management procedures for the storage bins will be maintained post the installation of the additional plant. The contents and quantity of the ground bins will remain unchanged from their current capacity. The only additional storage will be the mobile cement silo which will have a capacity of 75 tonnes.

### 2.6 Traffic Movements

The traffic flows for the current plant setup and the proposed flows with the additional plant are included in Appendix B. It should be noted that there is a considerable reduction in distance for the movement of the Decorative Materials to the proposed portable batch plant as opposed to the current movement from the Decorative Materials bins to the existing plant.

There will be no material increase in deliveries to the site as a direct result of the installation of the additional plant.

### 2.7 Raw Materials

The current raw materials stored onsite are as per the following:

- Bulk Cement 180 tonnes
- Coarse Aggregates 320 tonnes
- Sand 200 tonnes
- Decorative Aggregates 650 tonnes
- Admixtures 25,000 litres

There will be no additional materials stored onsite as a result of the additional mobile plant, save for the mobile cement silo.

### 2.8 Plant Capacity

The existing plant has a potential capacity to produce 2,000 tonnes of concrete a day. Historical records show that the average production for the existing plant is 1,400 tonnes per day.

The additional plant facilities will have a maximum capacity of 300 tonnes per day, with the expectation that the average output will be 100 tonnes per day.

### 2.9 Timeframes

The secondary plant is proposed to be assembled on site as soon as possible following approval. Assembly to operational standard is expected be completed within approximately four weeks.

### 3 POTENTIAL IMPACTS AND MANAGEMENT MEASURES

### 3.1 Air Quality

The operation of the secondary batch plant will have potential to generate fugitive and point source dust emissions typical to that of current activities on site.

The following dust management practices will be utilised in relation to the proposed plant, as appropriate:

- Ground bins raw materials will be stored in existing ground bins within allowable height limits.
- Traffic areas will be sealed or treated with water, eg. sprinklers, and maintained free from loose material. Travel distance between ground bins and hopper minimised.
- Weigh hopper fitted with wind shields.
- Conveyor product is pre-moistened (before transferring to weigh hopper). Wind shields will be fitted if deemed to be necessary.
- Cement silo:
  - fitted with reverse pulse air cleaning system
  - pressure relief valve dusted to within 1m of ground
  - high level alarm system with audible and visual alarms
  - test circuit for alarms to ensure working correctly
- Load out bay fitted with water sprays controlled by batching computer.
- All pollution control equipment will be inspection and maintained in accordance with the manufacturer's specifications.

Given the secondary plant will operate complimentary to the existing batching plant with all necessary control in place, no significant impacts are anticipated.

### 3.2 Noise

The operation of the secondary batch facility will not significantly alter current noise levels on the premises.

Vehicle movements, ie. front loader and agitator trucks, will not alter from current activities on site.

The premises is zoned General Industrial and is located within the Bayswater industrial area, with no sensitive receptors nearby. The closest residential property is over 450m away.

The premises will comply with assigned noise levels as outlined in *Environmental Protection* (Noise) Regulations 1997.

### 3.3 Wastewater Management

The existing water management facilities currently in operation on site will have more than adequate capacity to capture and treat the small amount of washdown water that will be generated at the site of the secondary plant.

Washdown water from the cleaning of agitator trucks in the loading bay (before they leave site) will be collected in a below ground wedge pit. Overflow from this settlement pit will drain via an open concrete spoon drain to the adjacent existing washout pit, approximately 10m away. Water the washout pit is continually recycled through a series of sediment pits and storage tanks for re-use in washout and production processes onsite.

The storage of admixtures associated with the secondary plant will be in accordance with the Department of Mines and Petroleum's Code of Practice for the storage and handling of dangerous goods.

Spill kits will be placed in close proximity to the plant for use should any spills or leaks occur.

### 3.4 Waste Management

There will be no additional waste types associated with the operation of the secondary plant.

Agitator trucks will washout into the existing washout pits in accordance with current practices.

Any hardened returned product or 'out of specification' product is dried onsite for collection and recycling at an approved facility.

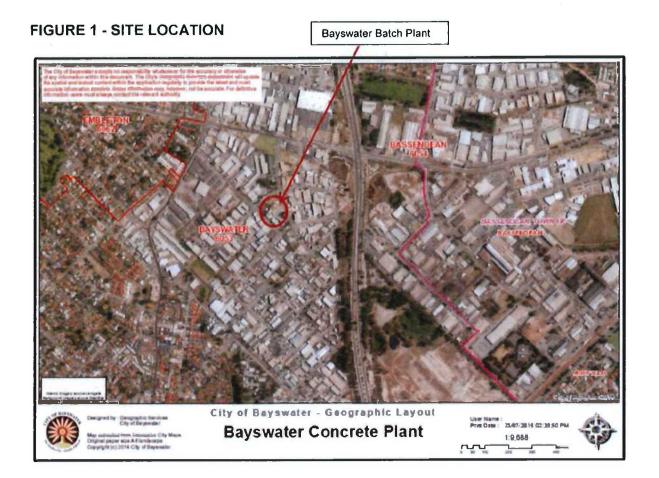
### 4 CONCLUSION

Concrete batching activities are currently approved at the Bayswater Batch Plant. The proposed secondary batch process will be installed and also operate in accordance with these approvals.

As outlined above all environmental aspects and potential impacts will be effectively managed on the premises.

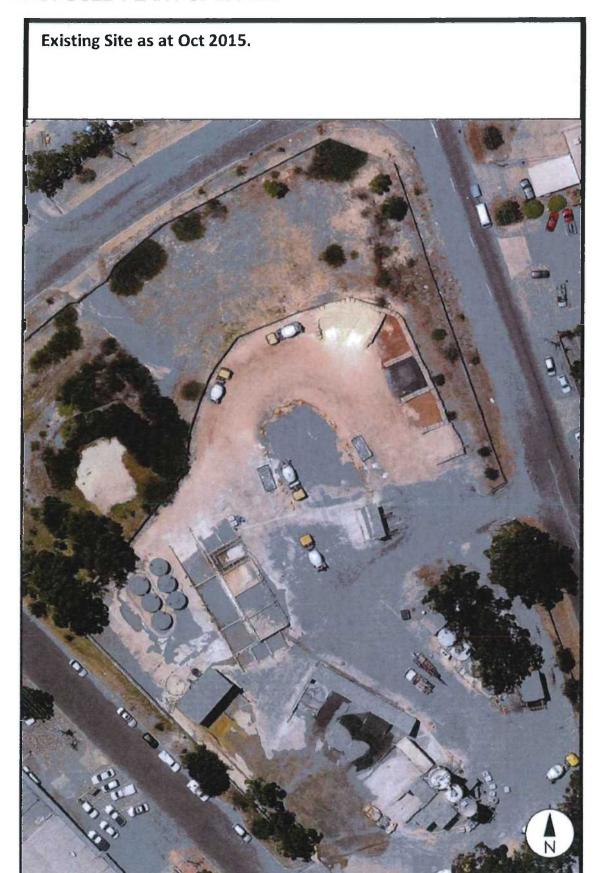
The proposed secondary batch process will not alter the nature or type of emissions, or the types of materials or processes used onsite.

### 5 FIGURES



### FIGURE 2 – SITE LAYOUT – EXISTING AND PROPOSED

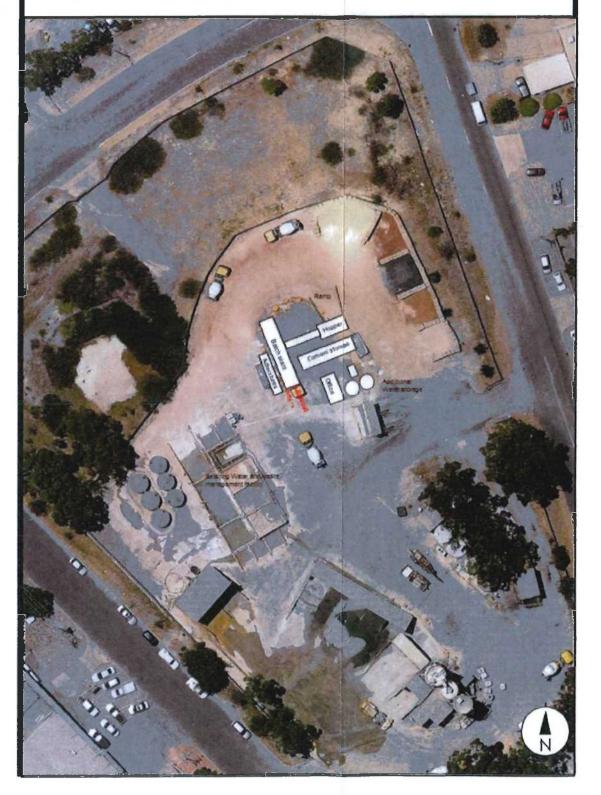
### BAYSWATER CONCRETE BATCH PLANT PROPOSED PLANT UPGRADE





### Proposed New Site Layout;

Addition of a secondary loadout point closer to Decorative aggregate stockpiles to reduce loader operations and movement.



### 6 APPENDIX A - PLANT SPECIFICATIONS

### BORAL BAYSWATER ADDITIONAL LOADING FACILITY

### **EQUIPMENT ENVIRONENTAL/SAFETY SPECIFICATIONS**

### Portabatch Batch plant

- 1. 45 tonne capacity horizontal cement storage silo, manufactured from 6mm mild steel plate complete with:
  - 1.1. Reverse jet pulse filter with 20m² of cloth area and pressure relief valve ducted to within 1m of the ground. This filter is insertable to enable re-positioning for work or travel.
  - 1.2. Additional inlet and high level monitor for connection to a 75t mobile silo.
  - 1.3. 100mm fillpipe with butterfly valve operated by the overfill protection system to shut off filling when the silo is full. A standard camlock coupling is fitted to the fill pipe for cement tanker hose connection.
  - 1.4. Overfill protection system with audible and visual alarms.
- 2. An aggregate weigh hopper, manufactured from 6mm mild steel plate, with sufficient capacity to batch 6 cubic metres of concrete is fitted with:
  - 2.1. Four lock down bolts positioned alongside each of the four shear beam load cells in order to simplify the locking process and ensure the transport stability of the weigh hopper.
  - 2.2. Two pneumatically operated geared discharge gates with greaseable hinge pins designed for ease of replacement. Inching control solenoids allow for variable door opening.
- 3. A batch conveyor, 750mm wide, will transfer the aggregates from the aggregate weigh hopper to the transit mixer through the gob hopper. The conveyor is manufactured from hot rolled channel and fitted with:
  - 3.1. Transoms 45° and flat return rollers.
  - 3.2. 3-ply belting with 3mm and 1.5mm covers.
  - 3.3. The conveyor drive has a flat, rubber lagged head drum
  - 3.4. The take-up has a crowned tail drum with cadmium plated screw type take-up, weighted scraper at the head end and vee plough at the tail will clean the conveyor belting. Necessary skirting and guarding is fitted at the tail of the conveyor.
- 4. A cement weigh hopper, manufactured from 6mm mild steel plate with a capacity of approx. 3.2 cubic metres (4.5 tonne) is fitted with:
  - 4.1. Inspection hatch that incorporates the reverse pulse filter.

### 75 Tonne Mobile Cement Silo

- 1. One horizontal storage silo, 53 Cubic Metre capacity (approx. 75 tonne cement with adequate freeboard), manufactured from 6mm mild steel plate complete with.
  - 1.1. Reverse jet pulse filter with 20m² of cloth area and pressure relief valve ducted to within 1m of the ground. This filter is insertable to enable re-positioning for work or travel.

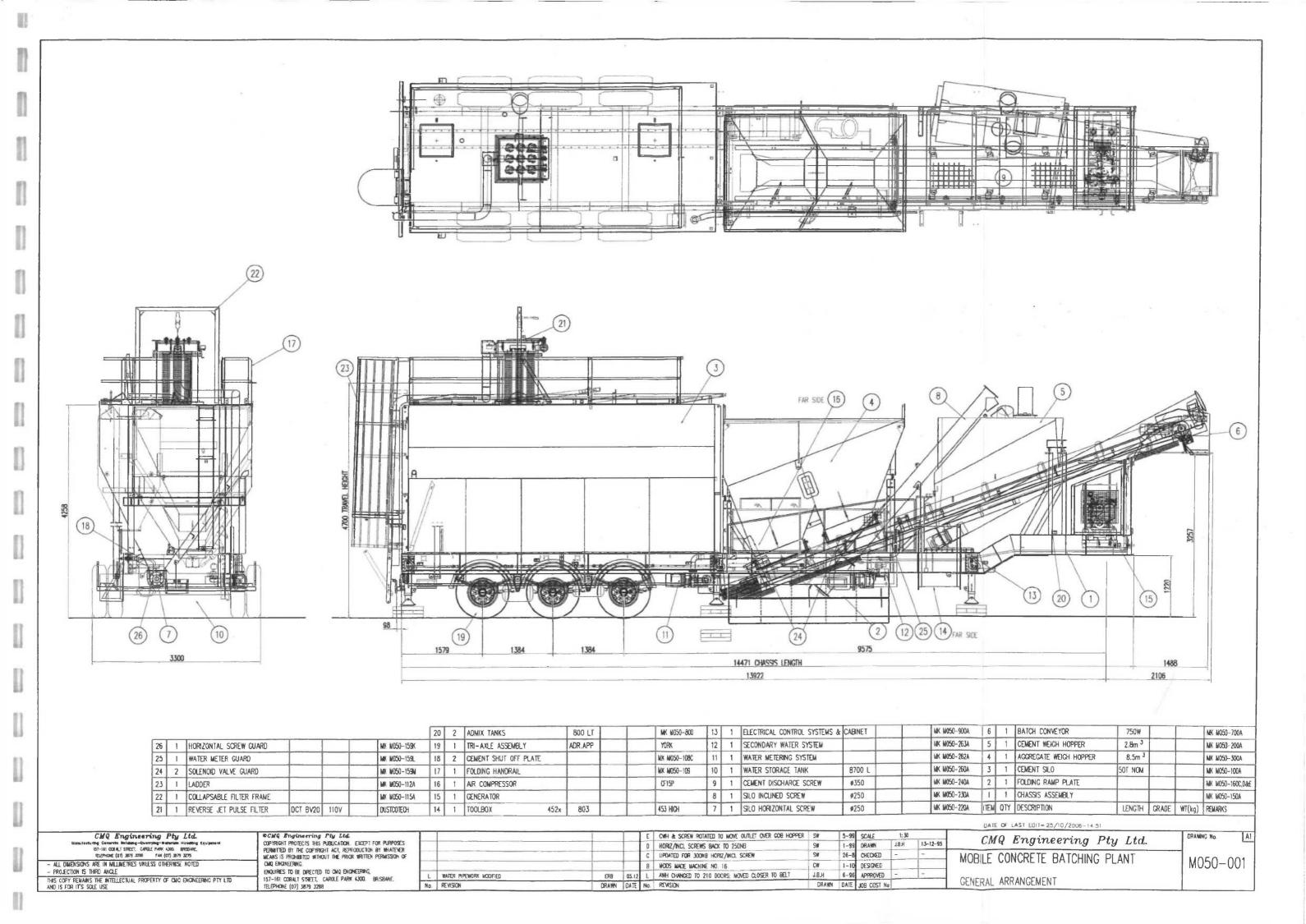
- 1.2. Two quick release inspection hatches one for ventilation and emergency evacuation and the other with internal ladder.
- 1.3. the silo. The external slide ladder is manual winch operated at the front of silo
- 1.4. 100mm fillpipe with butterfly valve operated by the overfill protection system to shut off filling when the silo is full. A standard camlock coupling is fitted to the fill pipe for cement tanker hose connection
- 1.5. Overfill protection system with audible and visual alarms
- 2. This unit carries D.O.T.A.R.A compliance plate and V.I.N number.

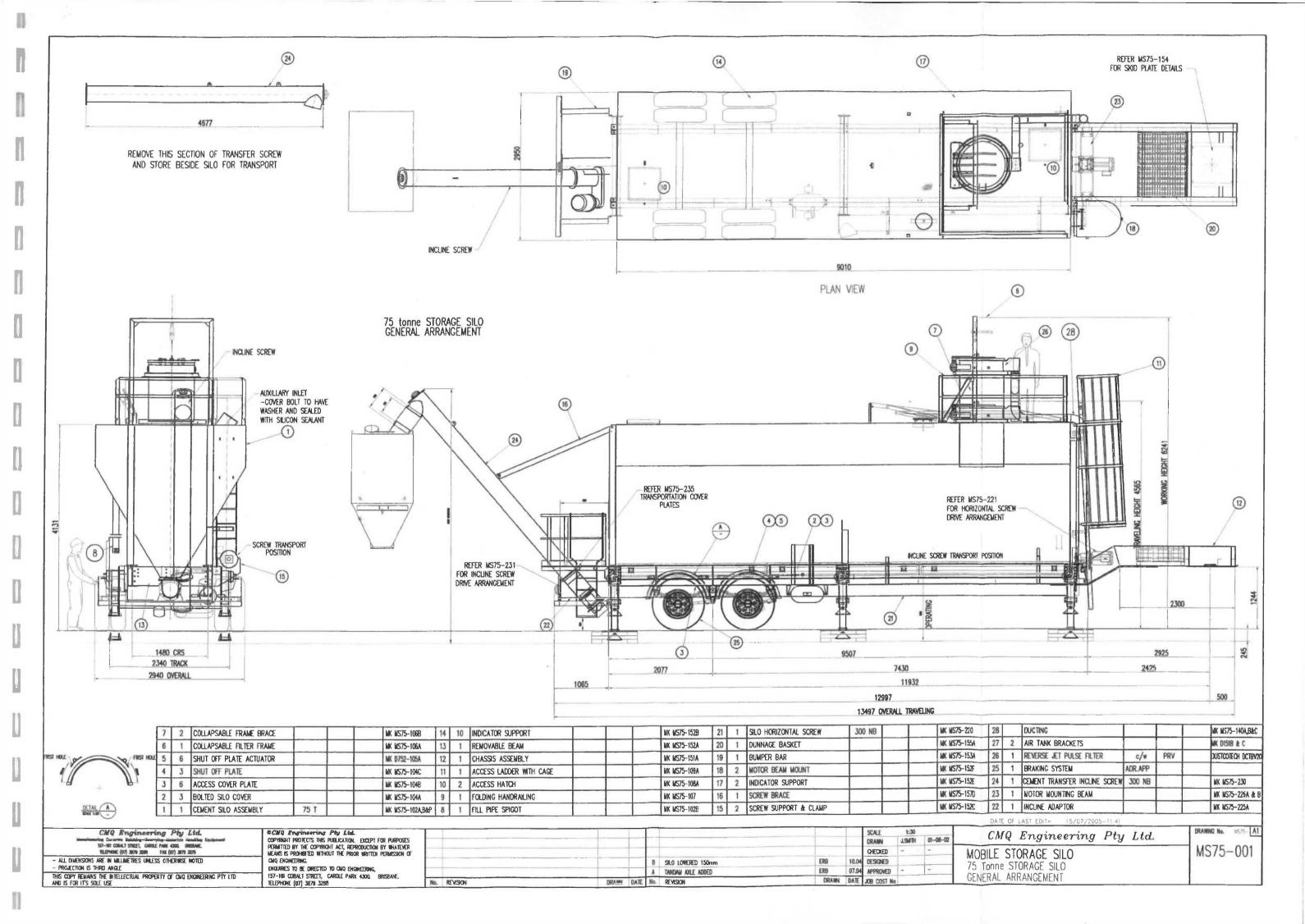
### **Auxiliary Weigh Hopper And Conveyor**

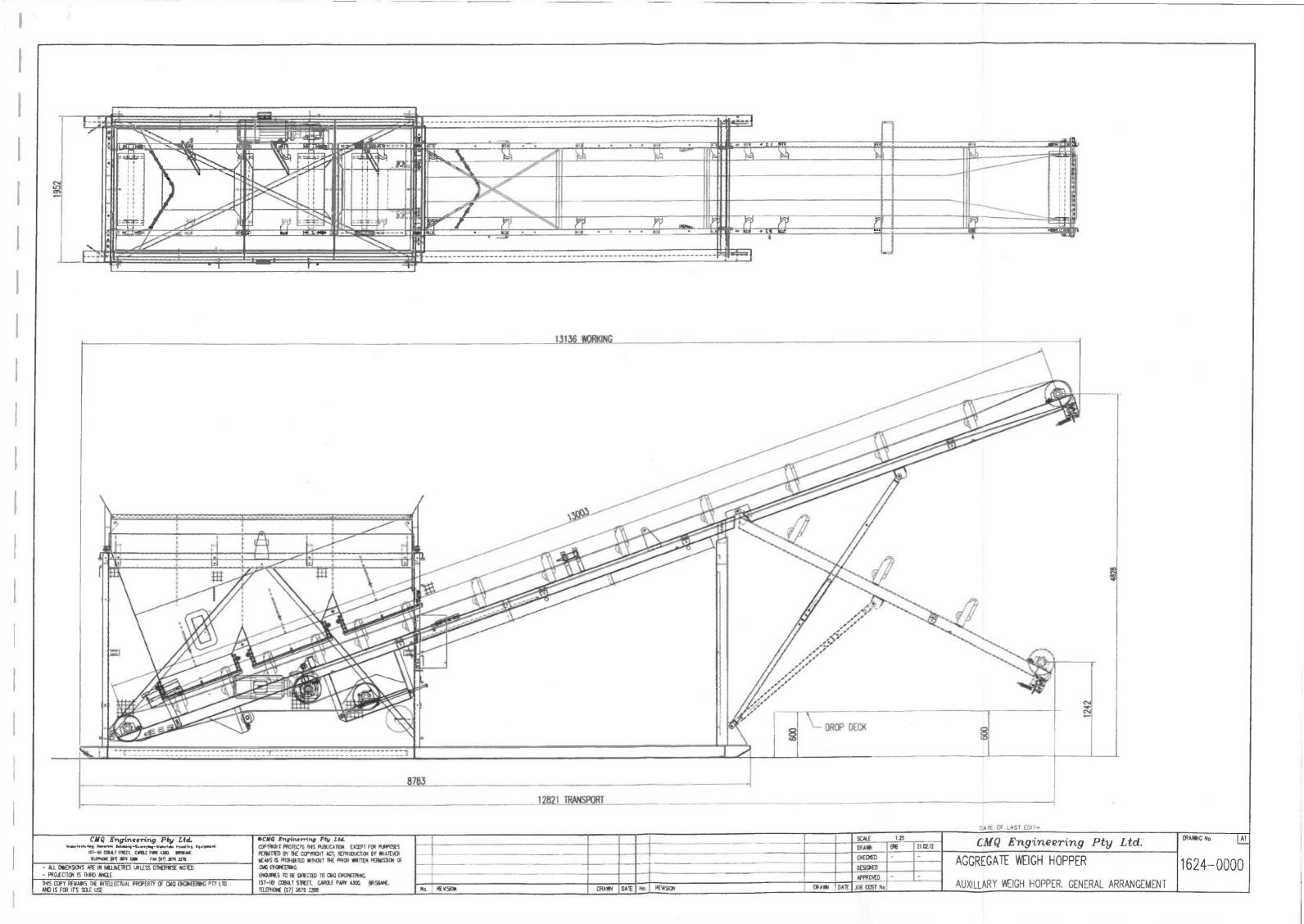
1. Aggregate weigh hopper, with a capacity of 8 cubic metres (15 tonnes), manufactured from 6mm plate, discharging through 3 pneumatically operated clamshell gates on greaseable hinge pins, suspended on 4 shear beam 5000kg load cells in a structural steel frame.

CITY OF BAYSWATER

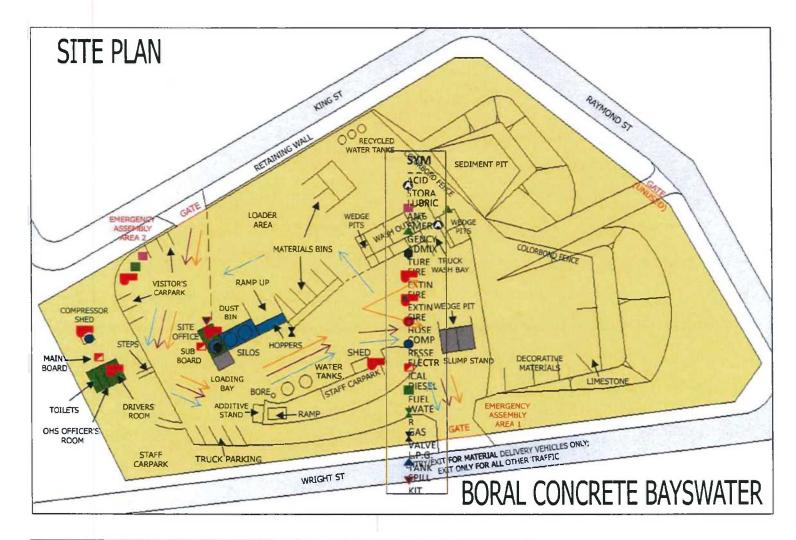
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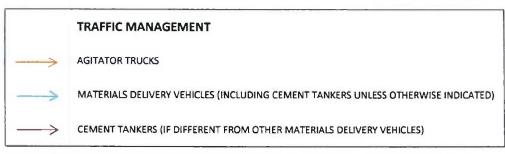




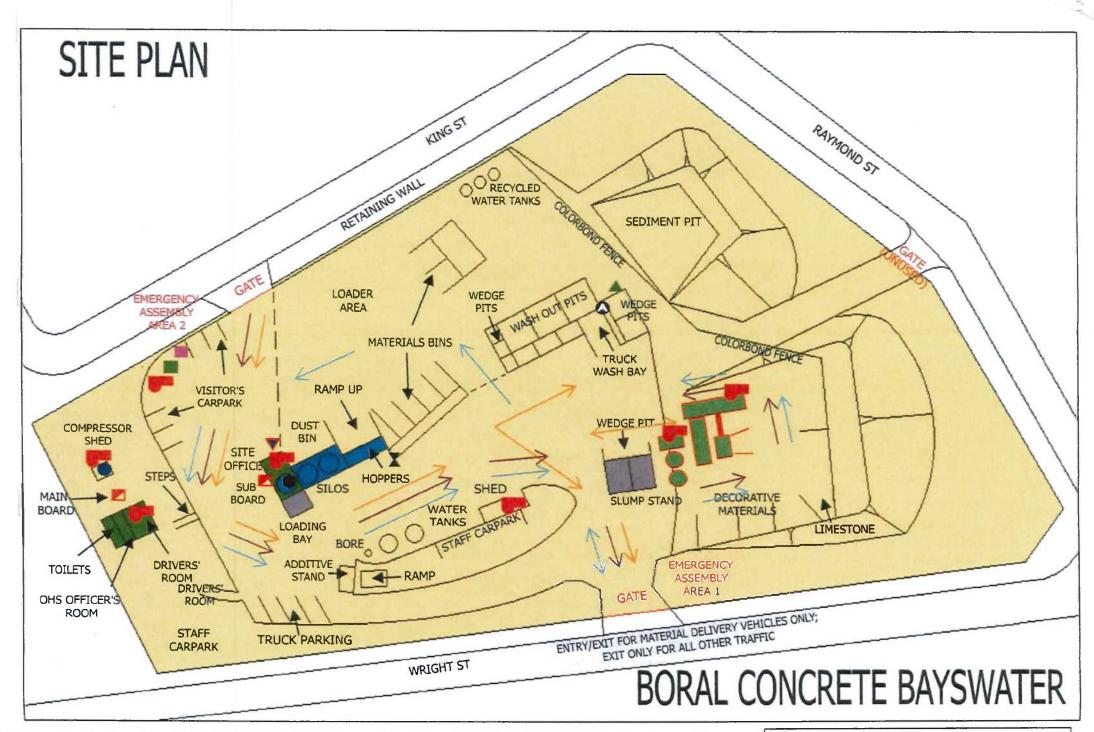
### 6 APPENDIX B – TRAFFIC MOVEMENTS

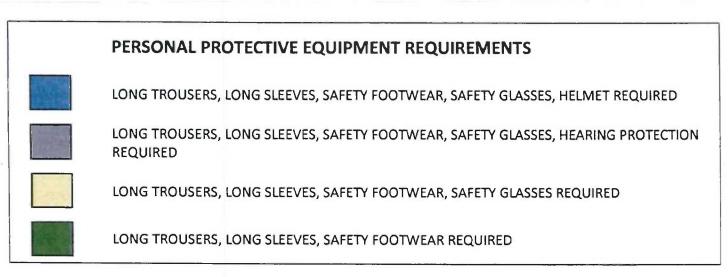


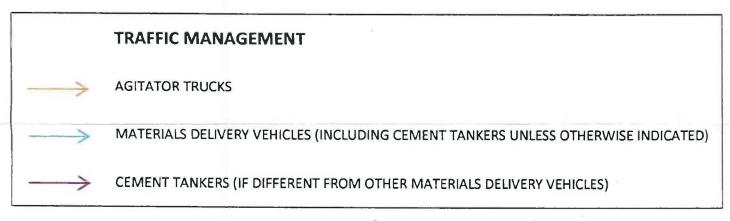




### **CURRENT TRAFFIC MOVEMENTS**







# ACID STORAGE LUBRICANT STORAGE EMERGENCY SHOWER ADMIXTURE STORAGE FIRE EXTINGUISHER FIRE EXTINGUISHER & BLANKET FIRE HOSE REEL COMPRESSED AIR ELECTRICAL SWITCH BOARD DIESEL FUEL DRUMS WATER METER GAS VALVE L.P.G. TANK

SPILL KIT

### PROPOSED TRAFFIC MOVEMENTS

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